



**Chemical Name:** High Vacuum Grease

**Manufacturer:** Dow Corning

**Container Size:** 8 oz.

**Location:** VLA

**Disposal:** Place empty container in trash.

**DOW CORNING****DOW CORNING CORPORATION  
Material Safety Data Sheet**

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Version: 1.5

Revision Date: 2008/02/04

**DOW CORNING(R) HIGH VACUUM GREASE****1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY**

MSDS No.: 01018817

**SUPPLIER:**Dow Corning Canada Inc.  
15-6400 Millcreek Drive, Suite 416  
Mississauga, ON, Canada L5N 3E7

Prepared by Product Safety: (800) 248-2481

NEWALTA: (800) 567-7455

Revision Date: 2008/02/04

**MANUFACTURER:**Dow Corning Corporation  
South Saginaw Road  
Midland, Michigan 48686

24 Hour Emergency Telephone: (989) 496-5900

WHMIS CLASSIFICATION: Class D, Division 2, Subdivision A.

Material Usage: Lubricant

**2. HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW**

Generic Description: Silicone compound

Physical Form: Grease

Colour: Translucent white

Odour: None

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**POTENTIAL HEALTH EFFECTS**Acute Effects

Eye: Direct contact may cause temporary redness and discomfort.

Skin: No significant irritation expected from a single short-term exposure.

Inhalation: No significant effects expected from a single short-term exposure.

Oral: Low ingestion hazard in normal use.

Prolonged/Repeated Exposure Effects

Skin: No known applicable information.

Inhalation: No known applicable information.

## DOW CORNING(R) HIGH VACUUM GREASE

Oral: No known applicable information.

Signs and Symptoms of Overexposure

No known applicable information.

Medical Conditions Aggravated by Exposure

No known applicable information.

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data and/or expert review of the product. Please refer to Section 11 for the detailed toxicology information.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

| <u>CAS Number</u> | <u>Wt %</u> | <u>Component Name</u>        |
|-------------------|-------------|------------------------------|
| 7631-86-9         | 7.0 - 13.0  | Silica, amorphous            |
| 556-67-2          | 0.1 - 1.0   | Octamethylcyclotetrasiloxane |

The ingredients listed above are controlled products as defined in CPR, am. SOR/88-555.

**4. FIRST AID MEASURES**

Eye: Immediately flush with water.

Skin: No first aid should be needed.

Inhalation: No first aid should be needed.

Oral: No first aid should be needed.

Notes to Physician: Treat symptomatically.

**5. FIRE FIGHTING MEASURES**

Flash Point: 212 °F / 100 °C (Closed Cup)

Autoignition Temperature: Not available.

Flammability Limits in Air: Not available.

Extinguishing Media: On large fires use dry chemical, foam or water spray. On small fires use carbon dioxide (CO<sub>2</sub>), dry chemical or water spray. Water can be used to cool fire exposed containers.

**DOW CORNING(R) HIGH VACUUM GREASE**

**Fire Fighting Measures:** Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan. Use water spray to keep fire exposed containers cool.

**Unusual Fire Hazards:** None.

**6. ACCIDENTAL RELEASE MEASURES**

**Containment/Clean up:** Determine whether to evacuate or isolate the area according to your local emergency plan. Observe all personal protection equipment recommendations described in Sections 5 and 8. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbant. Clean area as appropriate since spilled materials, even in small quantities, may present a slip hazard. Final cleaning may require use of steam, solvents or detergents. Dispose of saturated absorbant or cleaning materials appropriately, since spontaneous heating may occur. Local, provincial, federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases.

**Note:** See section 8 for Personal Protective Equipment for Spills. Call (989) 496-5900, if additional information is required.

**7. HANDLING AND STORAGE**

Use with adequate ventilation. Avoid eye contact.

Use reasonable care and store away from oxidizing materials.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Component Exposure Limits**

Consult local authorities for acceptable provincial values.

| <u>CAS Number</u> | <u>Component Name</u>        | <u>Exposure Limits</u>   |
|-------------------|------------------------------|--|
| 7631-86-9         | Silica, amorphous            | OSHA PEL (final rule): TWA 80mg/m <sup>3</sup> /%SiO <sub>2</sub> . NIOSH REL: TWA 6mg/m <sup>3</sup> .<br>LD50: > 5,110 mg/kg - Oral Rat<br>LD50: > 5,000 mg/kg - Dermal Rabbit |
| 556-67-2          | Octamethylcyclotetrasiloxane | Dow Corning guide: TWA 10 ppm.<br>LC50: > 12.17 mg/L - Inhalation Rat ; 4hr vapor<br>LD50: > 5,000 mg/kg - Oral Rat<br>LD50: > 4,640 mg/kg - Dermal Rabbit                       |

**DOW CORNING(R) HIGH VACUUM GREASE****Engineering Controls**

Local Ventilation: None should be needed.  
General Ventilation: Recommended.

**Personal Protective Equipment for Routine Handling**

Eyes: Use proper protection - safety glasses as a minimum.  
Skin: Washing at mealtime and end of shift is adequate.  
Suitable Gloves: Handle in accordance with good industrial hygiene and safety practices.  
Inhalation: No respiratory protection should be needed.  
Suitable Respirator: None should be needed.

**Personal Protective Equipment for Spills**

Eyes: Use proper protection - safety glasses as a minimum.  
Skin: Washing at mealtime and end of shift is adequate.  
Inhalation/Suitable Respirator: No respiratory protection should be needed.  
Precautionary Measures: Avoid eye contact. Use reasonable care.

Note: These precautions are for room temperature handling. Use at elevated temperature or aerosol/spray applications may require added precautions.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical Form: Grease  
Color: Translucent white  
Odor: None  
Odor Threshold: Not available.  
Specific Gravity @ 25°C: 1.1  
Viscosity: 2000000 cSt  
Freezing/Melting Point: Not available.  
Boiling Point: Not available.  
Vapor Pressure @ 25°C: Not available.  
Vapor Density: Not available.  
Evaporation Rate: Not available.  
Solubility in Water: Not available.  
Coefficient of Water/Oil: Not available.  
Distribution:  
pH: Not available.

**DOW CORNING(R) HIGH VACUUM GREASE**

Volatile Content: Not available.

Flash Point: 212 °F / 100 °C (Closed Cup)

Autoignition Temperature: Not available.

Flammability Limits in Air: Not available.

Note: The above information is not intended for use in preparing product specifications. Contact Dow Corning before writing specifications.

**10. STABILITY AND REACTIVITY**

Chemical Stability: Stable.

Hazardous Polymerization: Hazardous polymerization will not occur.

Conditions to Avoid: None.

Materials to Avoid: Oxidizing material can cause a reaction.

Hazardous Decomposition Products

Thermal breakdown of this product during fire or very high heat conditions may evolve the following decomposition products: Carbon oxides and traces of incompletely burned carbon compounds. Silicon dioxide. Formaldehyde.

**11. TOXICOLOGICAL INFORMATION**Component Toxicology Information

Recent results from a 2 year repeated vapour inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. These effects, which have been shown to be rat-specific, occur at the highest exposure dose (700 ppm) only, a level that greatly exceeds typical workplace or consumer exposures. Industrial, commercial, or consumer uses of products containing D4 do not represent a risk to humans.

Octamethylcyclotetrasiloxane administered to rats by inhalation at concentrations of 500 and 700 ppm resulted in statistically significant decreases in the number of pups born and the live litter size in both the first and second generations. Prolonged estrous cycles, and decreased mating and fertility indices were observed following 700 ppm exposure in the second generation only. There were also increases in the incidence of deliveries of offspring extending over an unusually long time period (dystocia). Subsequent mode of action work demonstrated the effect on reproduction in female rats is due to delayed ovulation caused by a treatment-related delay in or blockage of the luteinizing hormone (LH) surge on the day of proestrus. This mode of action is not considered relevant to humans.

Special Hazard Information on Components**Reproductive Effects**

| <u>CAS Number</u> | <u>Wt %</u> | <u>Component Name</u> |
|-------------------|-------------|-----------------------|
|-------------------|-------------|-----------------------|

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556-67-2    0.1 - 1.0    Octamethylcyclotetrasiloxane

Evidence of reproductive effects in laboratory animals.

**12. ECOLOGICAL INFORMATION****Environmental Fate and Distribution**

Complete information is not yet available.

**Environmental Effects**

Complete information is not yet available.

**Fate and Effects in Waste Water Treatment Plants**

Complete information is not yet available.

## Ecotoxicity Classification Criteria

| Hazard Parameters (LC50 or EC50) | High  | Medium           | Low   |
|----------------------------------|-------|------------------|-------|
| Acute Aquatic Toxicity (mg/L)    | <=1   | >1 and <=100     | >100  |
| Acute Terrestrial Toxicity       | <=100 | >100 and <= 2000 | >2000 |

This table is adapted from "Environmental Toxicology and Risk Assessment", ASTM STP 1179, p.34, 1993.

This table can be used to classify the ecotoxicity of this product when ecotoxicity data is listed above. Please read the other information presented in the section concerning the overall ecological safety of this material.

**13. DISPOSAL CONSIDERATIONS**

Can be incinerated in accordance with local regulations.

Call local hazardous waste disposal company or provincial waste authorities for more information.

**14. TRANSPORT INFORMATION****Canada Road (Based on IMDG Regulations)**

Not subject to local road regulations.

**Ocean Shipment (IMDG)**

Not subject to IMDG code.

**Air Shipment (IATA)**

Not subject to IATA regulations.

**DOW CORNING(R) HIGH VACUUM GREASE**

Call Dow Corning Transportation, (989) 496-8577, if additional information is required.

**15. REGULATORY INFORMATION**

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

WHMIS CLASSIFICATION: Class D, Division 2, Subdivision A.

DSL STATUS: All chemical substances in this material are included on or exempted from the DSL.

**16. OTHER INFORMATION**

Prepared by: Dow Corning Corporation

These data are offered in good faith as typical values and not as product specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

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